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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/778,497

02/07/2001

Rainer Graumann

P00,1994

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26574

7590

11/01/2005

SCHIFF HARDIN, LLP  
PATENT DEPARTMENT  
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EXAMINER

MICHALSKI, JUSTIN I

ART UNIT

PAPER NUMBER

2644

DATE MAILED: 11/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/778,497

Applicant(s)

GRAUMANN, RAINER

Examiner

Justin Michalski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. Applicant's remarks regarding the restriction requirement filed 18 February 2005 are persuasive. Currently claims 1-13 and 15-20 pending.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4, 5, 7, 8, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable Valley (US Patent 5,574,794) in view of Klass (US Patent 5,157,789).

Regarding Claim 1, Valley discloses a garment that is used in contaminated or hazardous atmospheres (i.e. operating room), having a microphone removably contained therein (Valley discloses removing the microphone to allow cleaning of the mask, paragraph bridging columns 1 and 2). Valley does not disclose the microphone is in a pocket. Klass discloses a hospital garment with an interior pocket (40) allowing the user to remove the interior material of pocket 40 during cleaning of the hospital garment (Col. 3, lines 25-36). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a pocket to allow the contents to be easily removed in order to clean the garment as taught by Klass.

Regarding Claim 2, Valley does not explicitly disclose the garment worn in a medical operating environment. However, it would have been obvious to one of

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ordinary skill in the art at the time the invention was made that the garment could be used within a medical operating environment for means of communication.

Regarding Claim 4, Valley further discloses a contact electrically connected to the microphone disposed at an exterior surface of the garment, and a cable having a mating contact, engageable with said contact, for transmitting signals from said microphone to a remote location (cable 30, Col. 3, lines 39-44).

Regarding Claim 5, Valley further discloses a cable connected to said microphone for transmitting signals from said microphone to a remote location, said garment having an interior and an exterior and said microphone being disposed in the interior of said garment (Figs. 1 and 2), and said garment having an opening thorough which said cable proceeds from said interior of said garment to said exterior of said garment (cable 30).

Regarding Claim 7, although Valley does not disclose an electrical filter circuit, filter circuits are notoriously well known in the art for suppressing and canceling unwanted and disturbing noise contained in electrical signals. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an electronic filter to filter out unwanted noise to produce a cleaner audio signal.

Regarding Claims 8 and 9, Valley discloses a communicating system comprising: a garment that is used in contaminated or hazardous atmospheres (i.e. operating room); a microphone removably contained in the garment (paragraph bridging columns 1 and 2); a reception unit disposed remote from said microphone; and a signal transmitting arrangement for transmitting signals, corresponding to voice signals picked up by said

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microphone, from said microphone to said reception unit (it is inherent that a voice signal will be transmitted by cable 30 in order to transmit signal from the microphone to a reception unit for processing and output of the signal. Valley does not disclose the microphone is in a pocket. Klass discloses a hospital garment with an interior pocket (40) allowing the user to remove the interior material of pocket 40 during cleaning of the hospital garment (Col. 3, lines 25-36). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a pocket to allow the contents to be easily removed in order to clean the garment as taught by Klass.

Regarding Claim 12, although Valley does not disclose an electrical filter circuit, filter circuits are notoriously well known in the art for suppressing and canceling unwanted and disturbing noise contained in electrical signals. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an electronic filter to filter out unwanted noise to produce a cleaner audio signal.

4. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over claim 1 above in view of Ingalls (US Patent 4,607,383).

Regarding Claim 16, Valley discloses a method as stated apropos of claim 1 above but does not disclose the microphone being a larynx microphone. One skilled in the art at the time the invention was made would have known that microphones come in different forms including a larynx microphone as disclosed by Ingalls (Figure 1). Ingalls teaches that larynx microphones are advantageous in noisy environments since they rely on direct mechanical coupling to the larynx of the wearer (Column 1, lines 11-18).

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Therefore, it would have been obvious to incorporate a larynx microphone in order to eliminate noise from the environment that the user is in for a clearer audio signal.

5. Claim 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over claim 1 and 8 above in view of Loftus et al. (Hereinafter "Lofts") (US Patent 4,885,796).

Valley discloses a garment as stated in claims 1 and 8 but does not disclose a wireless transmitter. Loftus et al. discloses a garment consisting of a facemask (Figure 2, mask 22) having a microphone integrated in the garment (transmitter 40 includes a microphone (Column 4, line 35) further comprising a wireless transmitter (transmitter 40) electrically connected to said microphone for wirelessly transmitting signals generated by said microphone to a remote location (Figure 1 discloses transmitter transmitting signals to receiver 44). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a wireless transmitter in order to transmit signals to a remote location without the burden of wires or other physical connections.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over claim 8 above in view of Murphy et al. (Hereinafter "Murphy") (US Patent 5,544,654).

Regarding Claim 11, Valley does not disclose controlling a medical-technical device by a voice signal. Murphy discloses voice control of a medical-technical device by using voice control (Fig. 10) in order to avoid the use of a keyboard or a footswitch. Therefore, it would have been obvious to one of ordinary skill in the art at the time the

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invention was made to include voice control of a medical-technical device in order to operate the medical-technical device while allowing full use of hands to perform a procedure at the same time.

7. Claims 13, 15, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable by Loftus et al. (US Patent 4,885,796) in view of Murphy (US Patent 5,544,654).

Regarding Claim 13, Loftus et al. discloses a method (Figure 1) for controlling a device comprising the steps of: integrating a microphone into a garment (microphone is within transmitter 40 located within mask 22) (Column 4, line 35); speaking voice commands into said microphone, which are converted into electrical signals by said microphone (it is inherent that the microphone would transduce audio signals into electric signals); communicating said electrical signals to a reception unit (receiver 44) located remotely from said microphone; and from said reception unit, producing control signal for controlling at least one device located remote from said microphone (transmitter 40 incorporates a voice actuated switch for controlling transceiver 48) (Column 3, lines 57-61). Loftus does not disclose the device being a medical-technical device. Murphy discloses voice control of a medical-technical device by using voice control (Fig. 10) in order to avoid the use of a keyboard or a footswitch. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include voice control of a medical-technical device in order to operate the medical-technical device while allowing full use of hands to perform a procedure at the same time.

Regarding Claim 15, Loftus et al. further discloses a microphone integrated into a garment consisting of a facemask (microphone is within transmitter 40 located within mask 22) (Column 4, line 35).

Regarding Claim 19, Loftus et al. further discloses transmitting signals with a wireless transmitter in electrical connection with said microphone (signals from transmitter 40 to receiver 44), providing a wireless receiver (receiver 44) at said reception unit, and wirelessly transmitting said signals produced by said microphone from said transmitter to said receiver (Figure 1).

8. Claims 16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loftus et al. as applied to claim 13 above in view of Ingalls (US Patent 4,607,383).

Regarding Claim 16, Loftus et al. discloses a method as stated apropos of claim 13 above but does not disclose the microphone being a larynx microphone. One skilled in the art at the time the invention was made would have known that microphones come in different forms including a larynx microphone as disclosed by Ingalls (Figure 1). Ingalls teaches that larynx microphones are advantageous in noisy environments since they rely on direct mechanical coupling to the larynx of the wearer (Column 1, lines 11-18). Therefore, it would have been obvious to incorporate a larynx microphone in order to eliminate noise from the environment that the user is in for a clearer audio signal.

Regarding Claim 20, Loftus et al. discloses a method as stated apropos of claim 13 above but does not disclose filter signals. Ingalls discloses electrical filters are useful in shaping the response of microphones (i.e. suppressing certain signals)



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(Column 1, lines 57-61). It would have been obvious to one of ordinary skill in the art at the time the invention was made that filters could be used to shape and suppress signals from a microphone.

9. Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Loftus et al. as applied to claim 13 above in view of Kettl et al. (US Patent 6,430,298).

Regarding Claim 17, Loftus et al. discloses a method as stated apropos of claim 13 above but does not disclose a mating contact and a cable leading to the reception unit. Kettl et al. discloses a garment (mask 6) which comprises transmitting an audio signal by electrically connecting a contact (contacts 36) to a microphone (Figure 5, microphone 4) and making contact accessible at an exterior surface of said garment (Figure 2, socket 44), connecting a mating contact at a first end of an electrical cable to said contact (plug 46), and connecting an opposite end of said cable to said reception unit, and transmitting said signals via said cable (cable 47) to said reception unit (Figure 1, unit 48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a mating contact to be able to disconnect a cable from microphone to allow unrestricted movement when the microphone is not in use.

Regarding Claim 18, Loftus et al. discloses a method as stated apropos of claim 13 above but does not disclose a cable in connection with the microphone where cable goes through an opening to the exterior of the garment. Kettl et al. discloses a garment

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(mask 6) which includes an integrated microphone in the interior (microphone 4), wherein the steps of transmitting the signal from the microphone comprises of providing electrical cable (wires 38 and cable 47) in electrical connection with said microphone and guiding said cable through an opening in said garment (plug and socket 44 and 46) from an interior of said garment to an exterior of said garment, and connecting an opposite end of said cable to said reception unit (unit 48). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a means for transporting a signal from the interior of the mask to the exterior of the mask in order to allow a signal to be sent to an external location by way of a cable.

### ***Conclusion***

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

DE 20217531 U1 discloses a neckband with a microphone (2) in a pocket (1' and 1'').

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin Michalski whose telephone number is (571)272-7524. The examiner can normally be reached on M-F 7-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JIM



October 27, 2005



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